

**REMARKS**

Claims 1-13 are pending in this application. The Office Action withdraws claims 4-9 and 11-13 as drawn to non-elected inventions; and rejects claims 1-3 and 10 under 35 U.S.C. § 103. By this Amendment, claim 1 is amended. Support for the amendments to the claim may be found, for example, in the specification at page 10, line 20 to page 11, line 9 and in claim 1 as originally filed. No new matter is added. In view of the foregoing amendments and following remarks, reconsideration and allowance are respectfully requested.

Entry of the amendments is proper under 37 CFR §1.116 because the amendments place the application in condition for allowance (for the reasons discussed herein); do not raise any new issues requiring further search and/or consideration (as the amendments amplify issues previously discussed throughout prosecution); and place the application in better form for appeal, should an appeal be necessary. The amendments are necessary and were not earlier presented because they are made in response to an argument raised in the final rejection. Entry of the amendments is thus respectfully requested.

**I. Rejoinder**

Applicants also respectfully request rejoinder of non-elected method claims 4 and 5 and product claims 6-9 and 11-13. Where product and process claims are presented in the same application, Applicants may be called upon under 35 U.S.C. §121 to elect claims to either the product or process. MPEP §821.04. However, in the case of an elected product claim, rejoinder will be permitted when a product claim is found allowable and the withdrawn process claim depends from or otherwise includes all the limitations of an allowed product claim. *Id.* Because process claims 4 and 5 include all the limitations of product claim 1, process claims 4 and 5 must be rejoined with the product claims when the product claims are found allowable.

Furthermore, where restriction was required between independent or distinct products, and all claims directed to an elected invention are allowable, any restriction requirement between the elected invention and any non-elected invention that depends from or otherwise requires all the limitations of an allowable claim should be withdrawn. Claims that require all the limitations of an allowable claim should be rejoined and fully examined for patentability in accordance with 37 CFR 1.104. *See MPEP §821.04(a).* Because claims 6-9 and 11-13 variously depend from elected product claim 1, claims 6-9 and 11-13 must be rejoined with the product claims when the product claims are found allowable.

Because the elected product claims are believed to be allowable for at least the reasons presented below, Applicants respectfully request withdrawal of the Restriction Requirement and rejoinder of claims 4-9 and 11-13..

## **II. Rejection under 35 U.S.C. §103**

The Office Action rejects claims 1-3 and 10 under 35 U.S.C. § 103(a) as being unpatentable over JP 2003-073538 to Mitsuru et al. ("Mitsuru") in view of U.S. Patent Application No. 2005/0001349 to Yosimura et al. ("Yosimura"). Applicants respectfully traverse the rejection.

Mitsuru at least fails to teach or suggest a polylactic acid resin composition where one of poly-L-lactic acid and poly-D-lactic acid *is bonded to a lamellar clay mineral to the exclusion of* the other of the poly-L-lactic acid and the poly-D-lactic acid as required by amended claim 1. Yosimura, considered either individually or combined, fails to cure this deficiency.

Rather, Mitsuru generally discloses a laminar clay material bonded to polylactic acid. The laminar clay material is organized with an organic onium salt and bonded to the polylactic acid through the hydroxyl group of the same. *See Abstract.* Specifically, Mitsuru

teaches using *at least one polymer of L-lactic acid, D-lactic acid, L-lactide and D-lactide as the polylactic acid to be bonded.* See ¶¶ 50-52 of the English translation.

Thus, Mitsuru is directed to binding *one or more* of poly-L-lactic acid, poly-D-lactic acid, poly-L-lactide and poly-D-lactide, but does not teach or suggest binding *one to the exclusion of the other.* As stated in the Office Action at page 3, Mitsuru does not teach one of a poly-L-lactic acid and poly-D-lactic acid being in an unbonded state. The Office Action continues by asserting that several factors suggest that polylactic acid exists in both bonded and unbonded forms. See pages 3-4. Taking this to be true for the sake of argument alone, Mitsuru fully fails to teach or suggest bonding one of poly-L-lactic acid and poly-D-lactic acid to the clay mineral to the exclusion of the other. Arguably, Mitsuru suggests having one or more of poly-L-lactic acid and poly-D-lactic acid in both bonded and unbonded form, but this is still structurally different from having one bonded, whether entirely bound or not, to the exclusion of the other.

Furthermore, Mitsuru provides no reason or rationale for one of ordinary skill in the art to have bonded one stereostructure to the exclusion of the other because this feature of claim 1 is novel and, hence, not known in the art. As stated in the specification:

Although the reason for the stereocrystals selectivity to be remarkably improved according to a polylactic acid resin composition of the present invention is not necessarily convincing, the inventors infer as follows. That is, in the present invention, one of two kinds of polylactic acids (PLLA, PDLA) different in stereostructure is bonded to a lamellar clay mineral, resulting in [mobility] being restricted, and hence crystallization (homocrystallization) of the polyactic acid [bonded] to the lamellar clay mineral [is difficult]. As a result, crystallization between the free polylactic acid not [bonded] to the lamellar clay mineral and the polylactic acid different in stereostructure [bonded] to the lamellar clay mineral becomes [easier], resulting in remarkably improved selectivity of the stereocrystals. Page 4, lines 19-28.

Stereocrytals and homocrytals have different properties resulting from differences in structure. For example, "the melting point (melting peak by DSC) of homocrystals of poly-L-lactic acid or poly-D-lactic acid is generally 160 to 180°C, and in contrast, the melting point

(melting peak by DSC) of stereocrystals thereof is generally 190 to 240°C." See page 4, lines 15-18. Therefore, Mitsuru at least fails to teach or suggest a polylactic acid resin composition where one of poly-L-lactic acid and poly-D-lactic acid *is bonded to a lamellar clay mineral to the exclusion of* the other of the poly-L-lactic acid and the poly-D-lactic acid as required by amended claim 1.

Yosimura fails to cure this deficiency. Yosimura is merely cited for disclosing a L-lactic acid having an optical purity of 95 mol% or more. Therefore, Mitsuru and Yosimura, either separately or combined, fail to teach or suggest all of the features of claims 1.

Thus, claim 1 would not have been rendered obvious by Mitsuru in view of Yosimura. Claims 2, 3, and 10 variously depend from claim 1 and, thus, also would not have been rendered obvious by Mitsuru in view of Yosimura for at least the same reasons. Accordingly, reconsideration and withdrawal of the rejection are respectfully requested.

### **III. Conclusion**

In view of the foregoing, it is respectfully submitted that this application is in condition for allowance. Favorable reconsideration and prompt allowance of claims are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

Respectfully submitted,



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